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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/809,626	03/24/2004	Simone Arrigo	19414-08962	7482
758	7590	02/19/2008	EXAMINER	
FENWICK & WEST LLP			SHENG, TOM V	
SILICON VALLEY CENTER			ART UNIT	
801 CALIFORNIA STREET			PAPER NUMBER	
MOUNTAIN VIEW, CA 94041			2629	
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			02/19/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Supplemental
Office Action Summary

Application No.

10/809,626

Applicant(s)

ARRIGO ET AL.

Examiner

Tom V. Sheng

Art Unit

2629

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 October 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22, 24 and 27-51 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 24 and 27-51 is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

SUPPLEMENTAL ACTION

Comment

In the office action of 1/24/2008, the examiner has misstated that claims 24 and 27-51 as rejected in the Office Action Summary. In fact, claims 24 and 27-51 have overcome all previous rejections. The examiner thanks attorney Rajiv Patel for pointing out the error.

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1-22 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-21 of U.S. Patent No. 6,781,570.

Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the application are obvious over the claims of the patent.

Detail of comparison between claim 1 of the application and the patent is as follow.

Claim 1 of the application	Patent 6,781,570
A photo-sensitive element configured to receive reflected light from a light source to produce a first image data associated with a first image and a second image data associated with a second image.	<p>The optical sensor for characterizing movement relative to the wireless device with a number of images (claim 1).</p> <p>The optical sensor includes at least an LED for providing light that is reflected off a surface or object, the reflected light being projected onto a photo-sensitive element included in the optical sensor (claim 7).</p> <p>Claimed photo-sensitive element corresponds to the photo-sensitive element of the optical sensor, of the patent.</p> <p>Claimed reflected light from a light source corresponds to the light reflected off a</p>

	<p>surface or object and originates from an LED, of the patent.</p> <p>There is no direct correspondence between claimed first and second image data and the characterizing movement with a number of images, of the patent.</p>
<p>An image data processing logic coupled to the photo-sensitive element for receiving the image data and configured to detect activity based on the image data and to qualify detected activity as false activity based on statistical analysis of past activity.</p>	<p>A processing unit ... for receiving ... movement data (claim 1).</p> <p>The optical sensor ... for providing movement data that is derived from the images to the processing unit (claim 1).</p> <p>The processing performed by the processing unit includes qualifying the movement data so as to determine if the associated movement is true user activity ... of false user activity ... (claim 3).</p> <p>The movement data is qualified based on statistics characterizing the user's usage patterns associated with the wireless input device (claim 5).</p> <p>Claimed image data processing logic</p>

	<p>coupled to the photo-sensitive element</p> <p>correspond to the processing unit with the optical sensor, of the patent, and teaches providing movement data derived from the images.</p> <p>Claimed qualifying of activity corresponds to the qualifying of movement data as to true or false user activity, of the patent.</p> <p>Claimed qualifying of activity based on statistics of past activity corresponds to the qualifying of movement data based on the user's usage pattern. [The usage pattern is based on past movements and thus past activity.]</p>
<p>A power control logic operatively coupled to the image data processing logic and configured to implement a native power control mode wherein an internal algorithm changes the power consumption of the optical sensing assembly from a full power mode to one or more lower power modes</p>	<p>Wherein the native mode of the optical sensor includes at least three power consumption levels self-controlled by the optical sensor (claim 14).</p> <p>Wherein ... the optical sensor further comprises computing logic that controls the transition between the power</p>

based on the image data.	consumption levels (claim 15). Claimed power control logic corresponds to the computing logic of the patent. Claimed native power control mode corresponds to the native mode of the optical sensor, of the patent. Claimed internal algorithm is inherent with the computing logic of the patent. Claimed changes between power modes correspond to the transition between the power consumption levels, of the patent.
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As analyzed above, there is no direct correspondence between claimed first and second image data and the characterizing movement with a number of images, of the patent. On the other hand, one of ordinary skill in the art would recognize that in order to characterize movement with a number of images, it would obviously involve first converting the images to image data first in order to facilitate the characterization of movement. Therefore, it would have been obvious to provide conversion of received images to image data, in order to facilitate subsequent characterization of movement.

Claims 2-22 are similarly rejected over claims 1-21 of the patent.

Allowable Subject Matter

3. Claims 24 and 27-51 are allowed.
4. The following is a statement of reasons for the indication of allowable subject matter: none of the prior art of record teaches, inter alia, the limitations "querying for a first activity at a first polling rate, in response ... it does not represent false activity based on statistical analysis of past activity, maintaining the first power consumption mode" of claim 24. Claims 27-51 are dependent on claim 24.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tom V. Sheng whose telephone number is (571) 272-7684. The examiner can normally be reached on 9:00am - 6:00pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Hjerpe can be reached on (571) 272-7691. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Tom Sheng



RICHARD HERTZ
SUPERVISOR, PATENT EXAMINER